



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,492	09/29/2003	Yoshifumi Kato	5095-4068	4676
27123	7590	08/09/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			VU, PHU	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,492

Applicant(s)

KATO, YOSHIFUMI

Examiner

Phu Vu

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 9-12, 14, 18, 19 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 14, 18, 19 and 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment A (filed May 16, 2005)
2. Claims 1-7 and 9-12, 14, 16, 18-19, 24-26 are presented for examination.
3. It is noted that claims 8, 13, 15, 17 and 19-23 have been cancelled.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7, 9-12, 14, 16, 18 have been considered but are moot in view of the new ground(s) of rejection.

Regarding arguments presented for claim 14 applicants argue that the reference's statement that "this makes it possible to eliminate color filters that have been so far necessary and to form a vivid image." This does not teach away from the use of color filters because the reference does not provide any statement or evidence that the adding color filters would be disadvantageous merely that they are not necessary. While not making color filters non-essential is an advantage through adding a greater possibility of design options the reference does not state color filters would detract from the display or that they do not offer any improvement.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2871

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 3, 5, 6-7, 10-11, and 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama et al. US Patent No. 5682402.**

**Regarding claims 1 and 26,** Nakayama teaches a light-emitting device comprising: a light source body generating light (fig. 1a element 2) and a plurality of resonant layers wherein each resonant layer comprises a first reflector (fig. 1a elements 1 and 4b ) and a second reflector (fig. 1a elements 4b and 4b), and a buffer layer (fig. 1a element 2 and 5) that is in contact with the first reflector and the second reflector, wherein each of the plurality of resonant layers resonates light of a predetermined wavelength, wherein the resonated light is emitted from the device, and wherein the plurality of resonant layers (elements 2 and 5) overlap in the direction in which light is emitted from the device such that light resonated between one of the first reflector (fig. 1a element 1) and the second reflector of one of the plurality of resonant layers and one the first reflector and the second reflector (fig. 1a element 4a) of another of the plurality of resonant layers has a different predetermined wavelength (fig. 1a length of the long double sided arrow) from the light resonated by one or more of the resonant layers , which light is emitted from the light-emitting device. The limitation of a room lamp of a vehicle found in claim 26 is the only difference between claims 1 and 26. This limitation does not structurally limit claim 26 any differently from claim 1 as all other structural elements are the same, thus this limitation is met.

**Regarding claim 3**, the reference teaches the light source body being an organic electroluminescent device.

**Regarding claim 5**, the reference teaches the plurality of resonant layers formed adjacent to each other in a direction in which the resonant layers overlap.

**Regarding claim 6**, the reference teaches each of the plurality of resonant layers is formed at a distance from each other with a layer interposed between in a direction in which the a direction in which the resonant layers overlap.

**Regarding claim 7**, the layer is considered flexible as flexible implies no degree of flexibility.

**Regarding claim 10**, the reference teaches at least one of the first and second reflectors of at least one of the plurality of resonant layers serves as the reflector for a plurality of resonant layers.

**Regarding claim 11**, the reference shows the second reflector totally reflecting light.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama in view of Spitzer et al US Patent no. 5654811.**

Art Unit: 2871

**Regarding claim 2**, Nakayama discloses all the limitations of claim 2 except the light source emitting white light. Spitzer discloses a light source emitting white light for emitting a wide or multiline spectrum of light. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use a white light to emit a wide or multi-line spectrum of light.

**Claims 4 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama in view of Yamada et al US Patent No 6831409.**

**Regarding claim 4 and 9**, Nakayama discloses the organic electroluminescent layer serving as the buffer layer, however Nakayama fails to disclose an organic electroluminescent device wherein the electrodes that are combined with the plurality of resonant layers, and wherein the electrodes are the first reflector and the second reflector of at least one of the plurality of resonant layers (ie "one of the first and second reflectors of at least one of the plurality of resonant layers being combined with the electrode"). Yamada discloses the electrodes that are combined with the plurality of resonant layers, and wherein the electrodes are the first reflector and the second reflector of at least one of the plurality of resonant layers to achieve a display device with minimum color deviation for various viewing angles (see title and column 3 lines 10-15). Therefore, at the invention, it would have been obvious to one of ordinary skill in the art to combine Nakaya's light with electrodes that are combined with the plurality of resonant layers, and wherein the electrodes are the first reflector and the second reflector of at least one of the plurality of resonant layers to achieve a display device with minimum color deviation for various viewing angles.

**Claim 12, 14, 16, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama in view of Baek US Publication No. 20010048496.**

**Regarding claims 12 and 16,** Nakayama teaches a light-emitting device comprising: a light source body generating light (fig. 1a element 2) and a plurality of resonant layers wherein each resonant layer comprises a first reflector (fig. 1a elements 1 and 4b ) and a second reflector (fig. 1a elements 4b and 4b), and a buffer layer (fig. 1a element 2 and 5) that is in contact with the first reflector and the second reflector, wherein each of the plurality of resonant layers resonates light of a predetermined wavelength, wherein the resonated light is emitted from the device, and wherein the plurality of resonant layers (elements 2 and 5) overlap in the direction in which light is emitted from the device such that light resonated between one of the first reflector (fig. 1a element 1) and the second reflector of one of the plurality of resonant layers and one the first reflector and the second reflector (fig. 1a element 4a) of another of the plurality of resonant layers has a different predetermined wavelength (fig. 1a length of the long double sided arrow) from the light resonated by one or more of the resonant layers , which light is emitted from the light-emitting device. Nakayama fails to teach a liquid crystal display and the light-emitting device arranged at the back side of the liquid crystal display so as to serve as a backlight. However Nakayama does disclose that it can be applied to form a vivid image by means of a simple control function. Baek shows a known transfective LCD with light-emitting device arranged at a back side of the display. Therefore, at the time of the invention, it would have been obvious to one

of ordinary skill in the art to use Nakayama's light source to form a display that can be applied to form a vivid image by means of a simple control function.

**Regarding claim 14**, Baek discloses a color filter formed on color filter substrate (see [0052]) wherein light emitted by the light-emitting device.

**Regarding claim 25**, the layer is considered flexible as flexible implies no degree of flexibility.

**Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama in view of Shimoda et al US Patent No 6791261.**

**Regarding claim 18**, Nakayama discloses a plurality of resonant layers comprises two resonant layers, however Nakayama fails to disclose the resonated light comprises blue light, green light, and red light. Shimoda discloses a light source wherein the resonated light comprises blue, green and red light to provide a light-emitting device that is balanced and optimized for a plurality of wavelengths (see column 1 lines 40-60 and fig. 7 elements LR LG and LB and abstract). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to apply a resonant layers that resonate blue green and red light to provide a light-emitting device that is balanced and optimized for a plurality of wavelengths.

**Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama in view of Baek and further in view of Spitzer et al US Patent no. 5654811.**

**Regarding claim 24**, Nakayam and Baek disclose all the limitations of claim 24 except the color filter comprises a red filter, a green filter and a blue filter. Spitzer



Art Unit: 2871

discloses a red, blue, and green color filters to achieve a desired color spectrum (see column 5 lines 19-32). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use red, blue, and green color filters to achieve a desired spectrum.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

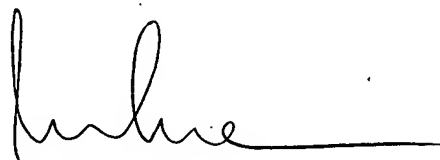
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

Art Unit: 2871

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu  
Examiner  
AU 2871



DUNG T. NGUYEN  
PRIMARY EXAMINER